Tryptophan MRI in People with Schizophrenia vs Healthy Controls

Kynurenic acid (KYNA) is a naturally occurring chemical in the brain. People with schizophrenia often have high KYNA levels and this may be a reason why people have this disease. One way to reliably increase KYNA levels is by ingesting the amino acid tryptophan. Tryptophan is a normal part of the human diet. Tryptophan gets metabolized/changed to other chemicals in the body including KYNA. In order to increase the KYNA levels in a controlled way, the investigators will give study participants 6 grams of tryptophan. They will study whether increased KYNA levels are related to psychiatric symptoms and cognition and use neuroimaging to measure how changes may occur in the brain (measuring brain activity and brain chemistry using the MRI magnet). Each participant will come to the Maryland Psychiatric Research Center for two to three visits and will randomly receive either tryptophan or placebo. The investigators will test healthy controls and people with schizophrenia to look for differences in their response to tryptophan.

For more information contact Sam Kane-Gerard, BA: 410-402-6120 or SGerard@som.umaryland.edu